

CPU STORAGE CABINET

BACKGROUND OF THE INVENTION

Cross Reference To Related Applications

[0001] Not applicable.

Statement Regarding Federally Sponsored Research

[0002] Not applicable.

Field of the Invention

[0003] The present invention relates to a central processing unit (CPU) storage cabinet and more particularly, to a universal CPU storage cabinet that may be easily and inexpensively made to open from either the left side or the right side.

Description of the Related Art

[0004] Most CPU devices are poorly designed boxes that are placed in out-of-the-way locations. Because of the unattractive appearance of a CPU, it is often desirable to hide it altogether. However, it must be remembered that the CPU cannot be physically moved too far from its respective computer screen and keyboard. These items are typically located on a work surface, such as a desk that is easily accessible by a computer user.

BRIEF SUMMARY OF THE INVENTION

[0005] The present invention described here is a central processing unit storage cabinet operable in either of two invertible positions wherein the cabinet includes first and second side walls, where each side wall includes a height, a length, a forward edge and a rear edge, top and bottom walls, where each of the top and bottom walls includes a length and a width, a vertically

adjustable door, a door hinge and a spacer panel. The top and bottom walls are attached to the side walls along a portion of the length of the side walls, where the lengths of the top and bottom walls are less than the lengths of the side walls. The spacer panel is attachable to the side walls adjacent to either the top wall or to the bottom wall as a function of which of the top wall and bottom wall is in the vertically lowest position. The door is attached to one of the side walls at a vertical location which is a function of the vertical placement of the top wall and the bottom wall, and the door hinge is attached to the door and to the side wall opposite the door opening.

[0006] There are a number of advantages, features and objects achieved with the present invention which are believed not to be available. For example, one advantage is that the present invention provides a CPU storage cabinet with a door that may be left or right opening and easily transformed from one opening to the other. Other objects of the present invention are to provide a CPU storage cabinet which is inexpensive, versatile, functional and attractive. A further advantage of the present invention is that the CPU storage cabinet is easy to move and allows facilitated hook-up of the CPU with an attendant computer screen and keyboard. Yet another feature of the present invention is the provision of a CPU storage cabinet which effectively hides an unsightly CPU. A still further advantage is that the cabinet is well ventilated, allowing ventilation to one side or the other.

[0007] A more complete understanding of the present invention and other objects, advantages and features thereof will be gained from a consideration of the following description of a preferred embodiment read in conjunction with the accompanying drawing provided herein. The preferred embodiment represents an example of the invention which is described here in compliance with Title 35 U.S.C. section 112 (first paragraph), but the invention itself is defined by the attached claims.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING

- [0008] FIGURE 1 is an isometric view of a CPU storage cabinet with a closed door.
- [0009] FIGURE 2 is an isometric view of the CPU storage cabinet shown in FIG. 1 with the door in an open position after pivoting right to left.
- [0010] FIGURE 3 is an inverted isometric view of the CPU storage cabinet shown in FIG. 1 (partially assembled) illustrating a left side opening door (the door pivoting from left to right).
- [0011] FIGURE 4 is an isometric view of the CPU storage cabinet after a partial reconfiguration before inverting.
- [0012] FIGURE 5 is a downward looking isometric view of the CPU storage cabinet shown in FIG. 1 with the door closed.
- [0013] FIGURE 6 is a rear isometric view of the CPU storage cabinet shown in FIG. 1.
- [0014] FIGURE 7 is a bottom isometric view of the CPU storage cabinet shown in FIG. 1 illustrating an attached set of casters.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT OF THE INVENTION

- [0015] While the present invention is open to various modifications and alternative constructions, the preferred embodiment shown in the various figures of the drawing will be described herein in detail. It is understood, however, that there is no intention to limit the invention to the particular embodiment, form or example which is disclosed. On the contrary, the intention is to cover all modifications, equivalent structures and methods, and alternative constructions falling within the spirit and scope of the invention as expressed in the appended claims, pursuant to Title 35 U.S.C. section 112 (second paragraph).

[0016] Referring now to FIGS. 1 and 2 , there is shown a CPU storage cabinet 10 having two side walls 12, 14, a top wall 16, a bottom wall 18, a door 20, two door hinges 22, 24 and a spacer panel 26. It is intended that a CPU (not shown) may be disposed on the bottom wall and behind the door, when closed.

[0017] Referring now also to FIG. 3, each side wall includes a height represented by the arrow 30 and a length represented by the arrow 32, a forward edge 34 and a rear edge 36. In a like manner, the top and bottom walls 16, 18 have a length depicted by the arrow 40 and a width depicted by the arrow 42.

[0018] The side wall 12 includes a large central opening covered by an air grille 44. The side wall 12 also includes a slanted surface 46 on the forward edge 34 and a recess 48 formed in the rear edge 36. The slanted forward edge allows a user's fingers to curl behind the door when it is closed so that it may be pivoted to an open position. The recess 48 in the rear edge provides an opening for easy access to cables and wires connected to the CPU.

[0019] The door 20 is vertically adjustable so that the cabinet can be easily configured between right and left opening versions. This is accomplished by having a series of fastener receiving openings 50 formed on the inside surface 51 of the side wall 14. The hinges 22, 24 each have one portion which is received within a door aperture 52 and screws which are connected to the door by a pair of screws receiving apertures 54, 56. The rearward portion of the hinge is connected to the side wall 14 by screws placed in a pair of the openings 50 formed in the side wall. This is done at an appropriate vertical level depending on whether the door is to open on the right side or the left side. For a left side opening door, the vertical level of the door is shown

in FIG. 3. For a right side opening door, the vertical level of the door is shown in FIG. 4 before the cabinet is inverted, as shown in FIG. 2.

[0020] The side walls also contain fastener receiving apertures, such as the two apertures 60, 62, FIG. 3, and apertures 64, 66, FIG. 4, at each vertical end of the side wall 14. This allows the spacer panel 26, also called a kickplate, to be attached to brackets, such as the bracket 68, FIG. 3, and then connected to both side walls by inserting fasteners into the appropriate fastener apertures. The term "fastener" used in this specification refers primarily to screw type fasteners, however, other types of fasteners may be found useful and may be used without departing from the basic structure of the cabinet.

[0021] The cabinet also includes two back panels 70, 72, FIG. 6, forming a central opening 73 allowing easy access to the CPU stored in the cabinet.

[0022] Hidden fasteners, well known to those skilled in the art, are mounted within the top wall 16 and the bottom wall 18 and are represented by circles, such as the circle 74, FIG. 2, in the top wall 16 and circle 76, FIG. 4, in the bottom wall 18 and allow easy assembly and disassembly of the top and bottom walls to the side walls.

[0023] Referring now to FIGS. 2, 3, 4 and 5, it is apparent that the lengths of the top and bottom walls 16, 18 are less than the lengths 32 of the side walls 12, 14. This configuration provides for an upper opening 80, FIGS. 3 and 5, in the top of the cabinet between the door 20 and the top wall 16, and a lower opening 82, FIGS. 2 and 4 in the bottom of the cabinet between the door 20 and the bottom wall 18. The openings 80, 82 along with the air grille 44 allow for good ventilation for the CPU and also allows the air grille to be facing to the left or the right.

[0024] To facilitate mobility, the cabinet includes a set of four casters 90, 92, 94, 96, FIG. 7, attached to the bottom wall 18 using screw fasteners and fastener receiving apertures, such as the apertures 100, 102, 104, 106, FIG. 4, as formed in the bottom wall 18.

[0025] It is to be understood the terms "top" and "bottom" are used for convention only because the cabinet may be inverted depending upon whether the door is to open on the left side or the right side. Hence, in FIGS. 2 and 4, the door is shown opening from the right side. In this configuration, the top wall 16 is located at a higher vertical elevation than the bottom wall 18. However, when the door is to be opened from the left side, then the bottom wall 18 is at a higher elevation than the top wall 16 as shown in FIG. 3. FIG. 4 illustrates the cabinet being reconfigured from that shown in FIG. 3, right side open door, to that shown in FIG. 2, left side open door. Thus, the door is vertically lowered (as long as the bottom wall 18 is more elevated than the top wall 16) and the spacer panel is moved from a "lower" position shown in FIG. 3 to an "upper" position shown in FIG. 4. Thereafter, the cabinet is turned upside down or inverted so that the attitude shown in FIG. 2 is assumed.

[0026] In operation, if the cabinet is in an unassembled state, assembly is easily and quickly done by attaching the side walls to the top and bottom walls. Next, the back panels are attached to the side walls. Thereafter, the hinges are attached to the door and depending on whether the door is to open from the left or from the right, the hinges are attached to the side wall 14 as a function of whether the cabinet is inverted or right side up. If inverted as shown in FIG. 4, the door is attached in a lowered position, the spacer panel is attached to the side walls above the door, the casters are installed upside down and the completed cabinet is inverted, ready for use.

[0027] If the cabinet is right side up after attaching the walls and back panels, the door is attached at a higher elevation, leaving room for attachment of the spacer panel. The cabinet is then turned on its side or inverted for installation of the casters. After installation, the cabinet is turned so that the casters are at the bottom of the unit, whereupon the cabinet is ready for use.

[0028] The cabinet is easily moved on the casters and because of the side and rear access to the stored CPU, the CPU can quickly be brought up to a workstation and connected to a screen, keyboard, mouse and network. The cabinet is versatile, functional and attractive, and it makes work spaces more flexible and versatile and more aesthetically appealing as well. The cabinet may be placed under a work surface or it may stand alone. Further, a decorative cover may be placed on top of the cabinet.

[0029] The above specification describes in detail the preferred embodiment of the present invention. Other examples, embodiments, modifications and variations will, under both the literal claim language and the doctrine of equivalents, come within the scope of the invention defined by the appended claims. For example, different fasteners may be used, the cabinet may have a different outer design and the amount of open space at the side, the rear and top and bottom of the cabinet may be altered. These are all considered to be equivalent structures. Further, they will come within the literal language of the claims. Still other alternatives will also be equivalent as will many new technologies. There is no desire or intention here to limit in any way the application of the doctrine of equivalents nor to limit or restrict the scope of the invention.